

Table 2 School-based Interventions

Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
Basen-Enquist et al[16]	695 students, predominantly Hispanic and White students, slightly more females than males, slightly more 9 th and 10 th graders than 11 th and 12 th graders	Social cognitive theory, Social influence theory, and Models of school change	Trained project staff, teachers, students, parents, community representatives	Safer Choices, a 20-lesson multi-year, multiple-component, theory-based HIV, STD, and pregnancy prevention curriculum with an emphasis on schoolwide change; Five components: 1) school organization, 2) sequential curriculum for 9 th and 10 th grade students, 3) peer education and school environment, 4) parent education activities, 5) community linkage activities	OL, RP, DF, TM	Grp. 1: Basic HIV/STD/Pregnancy prevention curriculum (5 50-minute sessions) Grp. 2: Standard schoolwide activities	19-Month: 9 th grade students in intervention schools experienced fewer instances of unprotected sexual intercourse in the past 3 months than students in comparison schools; 31-Month: 9 th and 11 th grade intervention group students had fewer sex partners without a condom in previous 3 months than students in comparison schools
Boyer et al[17]	695 high school students, 59% female, mean age 14.1 years, one-half were Chinese or Latino	Did not state	Did not state	Didactic knowledge- and skills-building sessions, including games, role-plays, problem solving activities	OL, RP, DF, TM	1 class period of didactic education	No significant differences in any of behavioral outcomes
Coyle et al[18]	4310 students, 53% female, predominantly White and Hispanic	Social cognitive theory, Social influence theory, and Models of school change	Trained project staff, teachers, students, parents, community representatives	Safer Choices, multiple-component, theory-based HIV, STD, and pregnancy prevention curriculum for 9 th grade students with an emphasis on individual and peer risk factors in the school environment; Five components: 1) school organization, 2) sequential curriculum for 9 th and 10 th grade students, 3) peer education and school environment, 4) parent education activities, 5) community linkage activities	OL, RP, DF, TM	Standard, knowledge-based HIV prevention curriculum	Intervention group reported fewer acts of intercourse without a condom in the three months preceding follow-up and more likely to have used condoms, and an effective pregnancy prevention method, including birth control pills, birth control pills plus condoms, or condoms alone, than comparison group

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Table 2 School-based Interventions (continued)

Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
Coyle et al[19]	2829 students, 50% female, 11.5 mean years of age, predominantly Latino	Social cognitive theory, Social inoculation theory	Trained health educators	Draw the Line/Respect the Line program, a HIV and other STD and pregnancy prevention program for youths in the 6 th , 7 th , and 8 th grades, 20-lesson curriculum. Curriculum included limit setting, refusal skills, understanding consequences of sexual intercourse, respecting others limits, condom demonstration, HIV-infected speaker	OL, RP, DF, TM	Usual classroom activities regarding HIV, other STD and pregnancy prevention	Boys in intervention group were less likely to report ever having intercourse, at each follow-up intervention group boys were less likely to report having sex, having sex in the past 12 months. Intervention group boys reported fewer number of times had sex in past 12 months and number of sex partners in past 12 months (1 year follow-up)
Fisher et al[20]	1532 students, 63% female, 14.8 mean years of age, 92% in 9 th grade, predominantly Hispanic American and Hispanic American	IMB-model	Regular classroom teachers	Classroom intervention: HIV/STD education, videos, discussion of attitudes and norms regarding HIV prevention, problem solving, behavioral skills for abstinence and condom acquisition, condom use demonstration and practice, sexual communication Peer intervention: peer leaders engaged in HIV prevention with 5 same sex friends and acquaintances over 3-week period, debunking myths, enhancing motivation, skill building, etc.	OL, RP, DF, TM	1 school received classroom intervention only, 1 school received peer intervention only, 1 school received standard-of-care	Significant increases at 3 month follow-up among sexually active participants in condom use during previous 3 months in combined and peer interventions. At 1 year, sexual active participants in classroom intervention reported increased condom use for the year following the intervention compared to control

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Table 2 School-based Interventions (continued)

Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
Kirby et al[21]	2122 students, mean age 12.3 years, 99% 7 th grade, 54% female, predominantly Latino	Social learning theory, Health belief model	Trained peer educators	Project SNAPP emphasized communication skills, refusal skills, protective behaviors, locating community resources, and self-efficacy using games, role plays, large and small group activities, guided discussion, and question and answer sessions	OL, RP, DF, TM	More didactic program with information on reproduction, pregnancy prevention, HIV and STD	No significant differences in any of behavioral outcomes
Kirby et al[22]	10600 youths, mean age 12.8 years, mean grade level 7.5, 55-58% female, predominantly White and Hispanic	Did not state	Trained intervention leaders	Postponing Sexual Involvement, focuses on risks of early sexual involvement, reasons for having sex/waiting, understanding and resisting social pressures, identifying peer pressure, sexual communication and negotiation, using class discussion, group activities, videos and slides and role playing. Part of the larger ENABL (Education Now and Babies Later) program.	OL, RP, DF, TM	Standard sex education or instruction in some other content area	Youth-led intervention group more likely to report pregnancy than control at 17 month follow-up, adult-led intervention group had higher STD rates than control
Levy et al[23]	2392 7 th grade students, but analyzed data from a subsample of 312 newly sexually active youth, 51% female, predominantly African American	Did not state but incorporated concepts of peer norms, attitudes, and intentions.	Master's level health educators	Youth AIDS Prevention Program (YAPP) is a multiple risk reduction program designed to prevent STD, HIV/AIDS and substance use using active learning and skill building techniques focusing on HIV/AIDS, pregnancy and STD prevention, decision	OL, RP, DF, TM	Basic AIDS education	Intervention participants were more likely to report using a condom with foam than control students, and had been sexually active marginally less often over the previous 30 days

making and
resistance/negotiation.

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Table 2 School-based Interventions (continued)

Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
Lonczak et al[24]	349 young adults, 49% female, mean age 21.3 years, predominantly White and African American	Social development model, social control, social learning, and differential association theories	Study consultant	Part of Seattle Development Project, focused on enhancing socialization processes during grades 1 through 6, no content specific to sexual behavior was provided. Program included teacher training (classroom management, interactive teaching, cooperative learning, cognitive and social skills training, developing social and emotional skills in children) and parent training (behavior management skills, skills for supporting children's academic development and resisting drug use, parenting classes), and student training (resisting social influences, positive ways to maintain friendships and stay out of trouble)	Did not state	None	Intervention group experienced sexual intercourse later, reported fewer lifetime sexual partners, more likely to report condom use at last intercourse, compared to control group participants. African Americans intervention group used condoms more frequently in previous 12 months than control group African Americans, and were less likely to report an STD diagnosis compared to controls
Main et al[25]	2015 students, 49% female, predominantly White and Hispanic, average age 15 years, 60% were in 9 th grade	Social cognitive theory, Theory of reasoned action	25 teachers selected by principals, most taught health, others taught science, physical education and study skills. Teachers attended a 5-day, 40-hour training program	Based in part on the Get Real About AIDS program, included sessions focusing on acquisition of skills that could be used in HIV-risk situations, HIV-related functional knowledge, teen vulnerability to HIV,	Not stated	Usual HIV programs	Sexually active students in the intervention group reported fewer partners in the previous 2 months and a greater frequency of condom use than control participants

Study	Study sample	Theoretical	Program	Intervention	Behavior	Comparison	Results
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normative determinants of
risk behavior, and condom
use

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		framework	implementation	content	change technique	group content	
Siegel et al[26]	1078 7 th , 8 th , and 9 th grade students, matched sample included 557 students, predominantly African American and Asian	Did not state	Teachers who had completed HIV-prevention curriculum training	Curriculum was culturally appropriate, and focused on sex education, HIV biology, drugs, decision making skills, public response to the AIDS crisis, refusal skills, and community resources. Incorporated classroom discussion and activities and videos	OL, RP, DF, TM	Did not state	No significant differences in any of behavioral outcomes
Weeks et al[27]	2392 7 th grade students, approximately one-half female, predominantly African American, average age 12.5 years	Social cognitive theory, Social influences model of behavior change	Masters level health educator with extensive training in program delivery	Youth AIDS Prevention Program (YAPP) focusing on HIV/AIDS, pregnancy and STD prevention, drug use and abuse, decision making and resistance/negotiation and use of condoms with foam. Parent interactive component included homework, parent participation in school activities, parent information packets.	OL, RP, DF, TM	Delayed treatment	Control group participants more likely to have ever used condoms with foam, used condoms with foam at last intercourse, and recently bought or obtained condoms or foam than parent involved groups
Workman et al[28]	60 African American and Hispanic high school freshman adolescent females, mean age = 15 years,	Cognitive-behavioral theory	1 males and 3 female trained psychology students served as group leaders	HIV/AIDS prevention intervention consisted of provision of information, desensitization, competency building to reduce sexual risk behavior	OL, RP, DF	Womenhood intervention was the attention placebo control group focused on issues related to female development, but did not include sexual risk reduction information	Both groups improved AIDS preventive behaviors improved over time, but no behavioral changes unique to the intervention group

Table 2 School-based Interventions (continued)

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Table 2 Clinic-based Interventions

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Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
Boekeloo et al[29]	215 12-15 year old adolescents visiting pediatrician for general health examination, approximately one-half female, 81% minority	Social cognitive theory, Theory of reasoned action	Pediatricians	The ASSESS Program (Awareness, Skills, Self-efficacy/Self-esteem, and Social Support) included an audiotaped STD risk assessment and education and follow-up with doctor, materials focused on STD/HIV risk behaviors and how to lower risk	OL, TM	Usual care treatment only	Condom use at last intercourse at 3-month follow-up increased for intervention group, control group reported increased STD symptoms at 9-month follow-up
Clark et al[30]	149 patients randomly selected from 500 high risk adolescents enrolled in CDC study, 79% female, mean age 16.4 years of age, 97% African American	None stated	Clinic staff	HIV counseling and testing received during standard clinic and emergency room visits	OL, TM	No control group	No significant differences in any of behavioral outcomes
DeLamater et al[31]	562 male African American adolescents, 15-19 years of age, mean age 18.3 years	Self-regulation model of illness behavior, Self-efficacy theory	Videotaped information or trained female health educator	Health educator intervention incorporated culturally specific STD education, personalized risk feedback, condom demonstration and practice, question and answer component Videotaped intervention script mirrored health educator script	OL, DF	Standard care treatment	No significant differences in any of behavioral outcomes
DiClemente et al[32]	522 female African American adolescents, 14-18 years of age	Social cognitive theory, Theory of gender and power	Health educator and two peer educators	Interactive group sessions focusing on: 1) Gender and ethnic pride 2) HIV prevention (abstinence, condom use, fewer partners) 3) Negotiating safer sex (communication and refusal skills) 4) Healthy relationships	OL, RP, DF	Interactive group sessions focusing on nutrition and exercise	At 6-month follow-up and 12-month follow-up intervention group increased consistent condom use in past 30 days, consistent condom use past 6 months, condom use at last intercourse; at 6-month follow-up intervention group decreased number of new vaginal partners in past 30 days and decreased self-reported pregnancy

Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
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Table 2 Clinic-based Interventions (continued)

Downs et al[33]	300 adolescent females 75% African American, aged 14-18	Mental models (identifies context-specific aspects of behavior that are most likely to be decisions of the target population)	Clinic staff	Interactive video intervention aimed at increasing young women's ability to make less risky sexual health decisions, reducing sexual health misconceptions, participants could select which sections to watch and how each proceeded	OL, RP, DF, TM	Content-matched intervention: dialogue from intervention was matched in a "Choose your own adventure" book Topic-matched intervention: 23 commercially available brochures which closely matched video intervention in content and length	Participants in video group were more likely to report having been abstinent from baseline to 3-month visit, less likely to report being diagnosed with an STD at 6-month follow-up
Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
Gillmore et al[34]	168 adolescents in clinic sample; age 14-19, mean age 17.11 years 54% White, approximately equal numbers of these groups assigned to each condition	Theory of reasoned action, social cognitive theory, social learning theory	Member of research team	Comic book: basic information about HIV/AIDS and other STDs, skills for negotiating condom use, condom application instruction, HIV/AIDS/STD community resources Videotape: teen actors model skills for negotiating condom use with a partner, reduce HIV/AIDS/STD and condom misconceptions Group skills training: skills modeled by peer tutors and participants engage in role playing and receive feedback; incorporated the comic book and video	OL, RP, DF	See intervention content	No significant differences in any of behavioral outcomes

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Table 2 Clinic-based Interventions (continued)

Metzler et al[35]	339 adolescents, 68% female, 15 to 19 years of age, predominantly non-Hispanic White	Social cognitive theory, information- motivational- behavioral skills framework	Trained clinic staff	The MAC-Choice Program (Monogamy, Abstinence, Condoms) incorporated individual sessions with a behavior change counselor focusing on decision-making about safer sex, increasing social skills, and acceptance of negative thoughts	OL, DF, RP, TM	Standard of care treatment	Intervention group reported decreased number of sexual partners at 6-month follow-up, fewer nonmonogamous partners, decreased sexual contacts with strangers, and decreased drug use before sex
Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change	Comparison group content	Results
Orr et al[36]	209 adolescent women with C. trachomatis genitourinary tract infection, mean age 17.9 years, 55% African American	Health belief model	Trained, adult research assistant	Participant was given STD pamphlet and STD education, and a condom application session with practice opportunity, emphasizing condom negotiation skills and positive attitudes about condoms	OL, DF, RP	Standard of care treatment	Increased reported condom use by experimental group at 6-month follow-up
Scholes et al[37]	1210 females, mean age 21 years, 69% White	Social science theory	Magazine and booster newsletter	Participants received 12-page self-help magazine tailored to their readiness to adopt condom use, beliefs and norms about condom use, condom efficacy, perceived barriers/facilitators to condom use, perceived STD risk and type of partner; participants received a “booster” newsletter tailored to their 3-month survey results	TM	Standard of care treatment	At combined 3- and 6-month follow-up, intervention group reported increased condom use in prior 3 months with any partner and a primary partner

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Table 2 Clinic-based Interventions (continued)

Study	Study sample	Theoretical framework	Program implementation	Intervention content	technique		Results
					Behavior change technique	Comparison group content	
Shrier et al[38]	123 female patients presenting for management of pelvic inflammatory disease, median age 17.2 years	Social cognitive theory, transtheoretical model of behavior change	Female health educators	Intervention (at time of treatment) included a 7-minute video, self-assessment exercise, male and female condom demonstration, educational session based on stage of change including topics: consequences of unprotected sex, risk perception, preventing pregnancy and STDs, condoms, spermicide, obtaining condoms, secondary abstinence, and talking about sex; participants were provided with written materials and a condom keychain	OL, DF	STD education at the discretion of the physician (including a discussion of STD transmission and the importance of consistent condom use)	Fewer intervention group participants had sex with nonmain sexual partner in previous 6 months at 6-month follow-up
Smith et al[39]	205 female adolescents, mean age 17.32 years, predominantly African American	Not stated	STD educator	Intervention was delivered in groups of 4-8 adolescents. Videotape addressed aspects of STD prevention and reinforced condom use. Intervention with STD educator included a condom demonstration, condom negotiation skills, and a STD knowledge game	OL, RP, DF	Standard medical services	No significant differences in any of behavioral outcomes
St. Lawrence et al[40]	246 African American adolescents (72% female), mean age 16 years	Information-motivational-behavioral skills model, Social learning theory	Male and female co-facilitators	Combined education with behavior skills training including correct condom use, sexual assertion, refusal, information provision, self-management, problem solving, and risk recognition	OL, RP, DF	2 hour session following standard curriculum, provided HIV/AIDS education in developmentally and culturally appropriate format, included games and group discussion	Intervention group participants increased condom-protected intercourse and were less likely to initiate intercourse at 1-year follow-up

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Table 2 Special Population Interventions

Gillmore et al[34]	228 youth in detention sample, age 13-18, mean age 15.74 years, 52% African American, approximately equal numbers of these groups assigned to each condition	Theory of reasoned action, social cognitive theory, social learning theory	Member of research team	Comic book: basic information about HIV/AIDS and other STDs, skills for negotiating condom use, condom application instruction, HIV/AIDS/STD community resources Videotape: teen actors model skills for negotiating condom use with a partner, reduce HIV/AIDS/STD and condom misconceptions Group skills training: skills modeled by peer tutors and participants engage in role playing and receive feedback; incorporated the comic book and video	OL, RP, DF	See intervention content	No significant differences in any of behavioral outcomes
Koniak-Griffin et al[41]	497 predominately Latina adolescent mothers, 16.67 mean age in years	Social cognitive theory; theory of reasoned action	Trained nurse facilitators	Project CHARM contained info. on HIV/AIDS tailored to pregnant women, maternal protectiveness to motivate healthy sexual decisions; and sexual responsibility and accountability; impact of HIV on community and children	OL, RP, DF, TM	Health promotion; life planning, communication, and coping	Intervention group had fewer sexual partners at the 6 mo follow up
Magura et al[42]	157 incarcerated male adolescent drug users, ages 16-19, predominately African American and Hispanic	Problem solving therapy	Trained male counselor	Intervention: General health knowledge, HIV/AIDS knowledge, the personal, social, economic and health consequences of drug abuse, consequences of sexual behavior, relations b/w drugs and AIDS, and how to seek health services	RP, DF	No content	Intervention group were significantly higher than control in general frequency of condom use and specifically in their frequency of condom use during vaginal, oral and anal intercourse. Also, they had marginally fewer high risk sexual partners at post-test

OL: Observational learning; RP: Role playing; DF: Direct feedback, TM: Tailored materials

Table 2 Special Populations Interventions (continued)

Study	Study sample	Theoretical	Program	Intervention	Behavior	Comparison	Results
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		framework	implementation	content	change technique	group content	
O'Hara [43]	77 adolescent (age 15-20) who were enrolled in an alternative school, 55% males, mostly African American and Hispanic	Social influences and empowerment theoretical models	Trained peer counselors	Peer Counselor/Educator (PCE) program consisted of STD/HIV information, community health resources, communication and negotiation skills, and safer sex strategies	OL, RP, DF	No control group	Condom use at last intercourse increased among those who had sex, and discussion among peers about HIV prevention increased
Rotheram-Borus et al[44]	310 HIV-infected youths 13-24 years of age, predominantly African American and Latino, 72% were male and most of those were gay or bisexual	Social action model	2 facilitators, 1 male and 1 female, who had received intensive training on the intervention	Stay Healthy component focused on coping with learning one's serostatus, implementing new daily routines to stay healthy, issues of disclosure, and participating in health care decisions Act Safe component focused on reducing substance use and unprotected sex acts by having youths identify their risk behavior triggers and modify their patterns of substance use as well as increase self-efficacy of condom use and negotiation skills	Did not state	Not stated	Following the Act Safe module, youths in the intervention group reported fewer unprotected sex acts, fewer sexual partners, fewer HIV-negative sexual partners, and less substance use, than those in the control condition
Rotheram-Borus et al[45]	311 runaway adolescents 11-18 years in age living in shelters, predominately African American, approximately 50% male	Social cognitive theory	Trained research assistants	Street Smart was an intervention designed to reduce HIV risk among runaway youth. The program consisted of HIV knowledge, variety of social skills training, and discussion of individual barriers to safer sex	OL, RP, DF	Standard treatment with no systematic introduction of HIV prevention material	Females in intervention significantly reduced their unprotected sexual acts at 2 years
Sloniam-Nevo et al[46]	218 delinquent or abused adolescents, 44% female, ages 12-18 yrs, residing in shelters, 54% White and 46% African American	Cognitive Behavioral theory	Trained graduate students in social work	Intervention content: AIDS education, attitudes about AIDS, and coping with AIDS risk situations	OL, RP, DF	No content	No significant differences in any of the behavioral outcomes

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Table 2 Special Populations Interventions (continued)

Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
St. Lawrence et al[47]	34 substance-dependent adolescents, 26% female, ages 13 – 17 yrs, residing in state run drug treatment programs, predominately White sample	Cognitive-Behavioral	Trained group leaders	Comparison of HIV education only training with behavioral skills training in lowering sexual risk behaviors in substance dependent adolescents. The education only group received risk reduction education only. The behavioral skills training group included HIV education, condom skills, communication skills, problem solving and self-management strategies	Education group: OL, DF Behavioral Skills group: OL, RP, DF	No control group	The Behavioral group reported less coercions into unwanted sexual activity, less exchanging of sex for money, less exchanging of sex for drugs, less engaging in causal sex, and less engaging in sex with a partner they knew to be nonmonogamous. Also, youths in the Behavioral group contracted fewer STD in the 2 months after the intervention compared to the Education only group
St. Lawrence et al[48]	428 incarcerated male adolescents, 15.8 mean age in years, predominately African American	Cognitive-Behavioral	Trained project staff	ST (Skills training) group: based on BART program which consisted of STD information, condom skills, refusal skills, partner negotiation, and peer communication	OL, RP, DF, TM	AM (Anger management): based on PACT program which consisted of accepting criticism, giving feedback, resisting peer pressure, problem solving and conflict resolution	The intervention and the control group both showed significant decreases in unprotected vaginal and anal sex, number of sex partners, amount of oral sex, and showed increases in condom-protected vaginal and anal sex, and % of intercourse occasions protected by condoms
St. Lawrence et al[49]	161 substance-dependent adolescents. 32% female, 16 mean age in years, residing in state run drug treatment programs, predominately White sample	Information-motivation-behavioral skills theoretical models	Two trained facilitators: 1 male and 1 female	3 intervention groups designed to increase safer sex behaviors in substance-dependent adolescents. The 2 intervention groups content focused on STD/HIV information, problem solving skills, condom skills, communication and negotiation, anger management, and in addition to this content, one of the intervention groups had an risk-sensitization procedures.	OL, RP, DF,	Health education curriculum tailored to adolescents	Both intervention groups significantly reduced their number of sexual partners overtime, reduced unprotected vaginal intercourse frequency, increased condom-protected intercourse frequency, increased % of condom-protected intercourse, and increased % abstinent. The intervention group that included risk sensitization procedures was more resistant to decay

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Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
Jemmott et al[50]	659 African American adolescents, 11.8 mean age in years, 53 % female	Social-cognitive theory, Theory of Reasoned Action, Theory of Planned Behavior	Trained adult and peer facilitators	Abstinence group: STD/HIV information, emphasis on abstinence and self-efficacy and negotiating abstinence, and resisting peer pressure to have sex Safer sex group: STD/HIV information, information about condoms if sexually active, condom skills, condom use self-efficacy and negotiation.	OL, RP, DF, TM	Non-HIV and non-sexuality health issues including healthy eating, exercise, and lifestyle choices	Abstinence group increased self-reported abstinence at 3 month follow up compared to other groups, but effect not sustained over time. Safer sex group increased self-reported condom use at 3-, 6-, and 12-months. Sexually experienced adolescents in the Safer sex group showed significantly less intercourse at the 6- and 12-month follow ups, and more condom use at all three follow-ups compared to Abstinence and control group
Jemmott et al[51]	496 inner-city African American adolescents, 54 % female, 13 mean age in years	Social-cognitive theory, Theory of Reasoned Action, Theory of Planned Behavior	Trained adult and peer facilitators	Intervention: STD/HIV information, abstinence information, risks of various behaviors, and belief about condoms and misconceptions, condom self-efficacy and condom negotiation, and risk associated with sharing needles.	OL, RP, DF, TM	Focused on behaviors associated with coronary heart disease, stroke, hypertension, and certain cancers, and included information about food and nutrition and exercise	Intervention group participants reported less HIV-risk associated sexual behaviors at 6-month follow up, and specifically, they engaged in less unprotected sex, less frequently engaged in anal intercourse in the previous 3 month, and reported having anal sex less frequently, and with fewer partners than the control group
Rotheram-Borus et al[52]	151 adolescents, 52% female, 18.1 mean age in years, mostly African American and Hispanic	Social Cognitive Theory, Learning Theory	2 trained facilitators	Intervention content was designed to include HIV knowledge, social cognitive factors such as perceived risk and self-efficacy, negotiation, condom skills, and goal setting.	OL, RP, DF	No content	At 3 month follow up, the 7-session intervention group had fewer sexual partners than the other groups

Table 2 Community-based Interventions

OL: Observational learning; RP: Role playing; DF: Direct feedback, TM: Tailored materials

Table 2 Community-based Interventions (continued)

Study	Study sample	Theoretical framework	Program implementation	Intervention content	Behavior change technique	Comparison group content	Results
O'Donnell et al[53]	1061 7 th and 8 th grade adolescents in urban public schools, 53 % female, predominately African American and Hispanic,	Health Beliefs theory, Social Learning theory	Trained teachers	The Reach for Health Community Youth Service (CYS) intervention to reduce early and unprotected sex among urban middle school students in grades 7 and 8. The Reach for Health only intervention was curriculum only and focused on drug and alcohol use, violence, and sexual behaviors. The Reach for Health CYS group contained the same curriculum as the other group, but were also placed in community health agencies for field experience	OL, RP, DF	No content	Students in the Reach for Health CYS group reported significantly less recent sexual activity and scored lower on the sexual activity index than the other groups
Stanton et al[54]	383 African American adolescents, 11.3 mean years of age, approximately 50% female, and 73% pre-teen (ages 9-12 years)	Protective Motivation Theory	Pair of trained staff	The intervention group consisted of friendship groups of youths and focused on STD/HIV knowledge, decision making, communication and negotiation skills, as well as peer norms regarding condom use	OL, RP, DR, TM	Invited to attend weekly sessions offered at different community sites	6-month follow up: self-reported condom use rates were significantly higher for the intervention group, and this effect was especially strong for boys and among 12-month follow-up: no effects of intervention on behavior

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